Attorney Docket No.: 50051-002US1

Applicant(s): ARDYTHE L. MORROW
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AMENDMENTS TO THE CLAIMS

Please replace the first table at page 14, entitled "Fucosyl oligosaccharides," with the following amended table:

Fucosyl oligosaccharides

2'FL	2-Fucosyllactose 2'-Fucosyllactose	Fucα1,2Galβ1,4Glc
LNF-I	Lacto-N-fucopentaose I	Fucα1,2Galβ1,3GlcNAcβ1,3Galβ1,4Glc
LNF-II	Lacto-N-fucopentaose II	Galβ1,3∖
		GlcNAcβ1,3Galβ1,4Glc
		Fucα1,4 ⁷
3'FL	3-Fucosyllactose	Galβ1,4 _{\(\sigma\)}
3FL		Glc
		Fucα1,3 ⁷
LNF-III	Lacto-N-fucopentaose III	Galβ1,4 _{\(\sigma\)}
		GlcNAcβ1,3Galβ1,4Glc
		Fucα1,3 ⁷
LDFH-I	Lacto-N-difucohexaose I	Fucα1,2Galβ1,3 _{\(\sigma\)}
		GlcNAcβ1,3Galβ1,4Glc
		Fucα1,4 ⁷
LDFT	Lactodifucotetraose	Fucα1,2Galβ1,4 _{\(\sigma\)}
		Glc
		Fuca1,37

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AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of claims:

1-32. (Cancelled)

- 33. (Currently Amended) A method for treating or reducing the risk of infection, the method comprising administering to a subject in need thereof a composition containing (a) a molecule including a fucose group in an $\alpha 1,2$ linkage, an $\alpha 1,3$ linkage or an $\alpha 1,4$ linkage to a galactose group, a fucose group in an $\alpha 1,4$ linkage to an N-acetylglucosamine group, a fucose group in an $\alpha 1,3$ linkage to an N-acetylglucosamine group, or a fucose group in an $\alpha 1,3$ linkage to a glucose group, and (b) a pharmaceutically acceptable carrier; wherein said composition is not a mammalian milk.
- 34. (Currently Amended) The method of claim 33, wherein the composition <u>further</u> comprises <u>2'-fucosyllactose</u> (2'FL) or <u>2'-fucosyl-N-acetylglucosamine</u> (2'FLNAc).
- 35. (Currently Amended) The method of claim 34, wherein the molecule comprises a protein to which 2'FL and/or 2'FLNAc are directly or indirectly covalently attached to a protein.
- 36. (Original) The method of claim 33 wherein the infection is caused by *V. cholerea* or *C. jejuni*.
- 37. (Original) The method of claim 33 wherein the infection in an enteric infection.

38-58. (Cancelled)

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59. (Previously Presented) The method of claim 33, wherein the molecule is a glycan, a glycolipid, or a glycoprotein.

- 60. (Previously Presented) The method of claim 59, wherein the glycan is a glycosaminoglycan.
- 61. (Currently Amended) The method of claim <u>59</u> 60, wherein the glycoprotein is a mucin.
- 62. (Currently Amended) The A method of claim 33 for treating or reducing the risk of infection, comprising administering to a subject in need thereof a composition containing a, wherein the molecule includes including at least two different moieties a first sugar moiety, a second sugar moiety, and a pharmaceutically acceptable carrier, the first sugar moiety being 2'FL or 2'FLNAc, and the second sugar moiety being selected from a group consisting of <u>lacto-N-fucopentaose I [[an]]</u> (LNF-I) group, an 2'FL group, [[an]] lacto-N-fucopentaose II (LNF-II) group, [[an]] 3'-fucosyllactose 3'FL group, [[an]] <u>lacto-N-fucopentaose III (LNF-III) group, [[an]] lacto-N-difucohexaose I (LDFH-I)</u> [[group]], [[an]] <u>lactodifucotetraose</u> (LDFT) group, 3-fucosyllactose, lactoN-tetraose, lactoN-neotetraose, 3'-sialyllactose, 3'-sialyllactosamine, 6'-sialyllactose, 6'sialyllactosamine, sialyllacto-N-neotetraose c, monosialyllacto-N-hexaose, disialyllacto-N-hexaose I, monosialyllacto-N-neohexaose I, monosialyllacto-N-neohexaose II, disialyllacto-N-neohexaose, disialyllacto-N-tetraose, disialyllacto -N-hexaose II, sialyllacto-N-tetraose a, disialyllacto-N-hexaose I, sialyllacto-N-tetraose b, 3'-sialyl-3fucosyllactose, disialomonofucosyllacto-N-neohexaose, monofucosylmonosialyllacto-Noctaose (sialyl Lea), sialyllacto-N-fucohexaose II, disialyllacto-N-fucopentaose II, monofucosyldisialyllacto-N-tetraose, and a variant thereof which is identical to one of these moieties except that the reducing end is GlcNAc instead of glucose; wherein said composition is not a mammalian milk.

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63. (Currently Amended) The method of claim 62 33, wherein the molecule is a glycoprotein modified by at least two different oligosaccharide groups selected from the group consisting of 2' fucosyllactose; lacto N-fucopentaose I; lacto-N-fucopentaose II; 3' fucosyllactose; lacto N-fucopentaose II; lacto N-difucohexaose I; lacto-N-fucopentaose II; lacto-N-difucohexaose I; lacto-N-fucopentaose; lacto-N-fucopentaose; 3'-sialyllactose; 6'-sialyllactosamine; sialyllacto-N-neotetraose; monosialyllacto-N-hexaose; disialyllacto-N-neohexaose I; monosialyllacto-N-neohexaose; disialyllacto-N-neohexaose; disialyllacto-N-hexaose; disialyllacto-N-hexaose I; sialyllacto-N-hexaose II; sialyllacto-N-tetraose; disialyllacto-N-hexaose II; sialyllacto-N-octaose; disialomonofucosyllacto-N-neohexaose; monofucosylmonosialyllacto-N-octaose (sialyl-Lea); sialyllacto-N-tetraose, and a variant thereof which is identical to one of the groups except that the reducing end is GleNAc instead of glucose.

- 64. (New) The method of claim 62, wherein the first sugar moiety and the second sugar moiety are different.
- 65. (New) The method of claim 62, wherein the second sugar moiety is LNF-I, LNF-II, 3'-fucosyllactose, 3-fucosyllactose, LNF-III, LDFH-I, LDFT, or a variant thereof which is identical to LNF-I, LNF-II, 3'-fucosyllactose, 3-fucosyllactose, LNF-III, LDFH-I, or LDFT except that the reducing end is GlcNAc instead of glucose.

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66. (New) The method of claim 62, wherein the second sugar moiety is selected from the group consisting of 3'-fucosyllactose, LDFH-I, LDFT, 3'-sialyllactose, 3'-sialyllactosamine, 6'-sialyllactose, 6'-sialyllactosamine, sialyllacto-N-neotetraose c, monosialyllacto-N-hexaose, disialyllacto-N-hexaose I, monosialyllacto-N-neohexaose II, disialyllacto-N-neohexaose, disialyllacto-N-tetraose, disialyllacto-N-hexaose II, sialyllacto-N-tetraose a, disialyllacto-N-hexaose I, sialyllacto-N-tetraose b, 3'-sialyl-3-fucosyllactose, disialomonofucosyllacto-N-neohexaose, monofucosylmonosialyllacto-N-octaose (sialyl Lea), sialyllacto-N-fucohexaose II, disialyllacto-N-fucopentaose II, monofucosyldisialyllacto-N-tetraose, and a variant thereof which is identical to one of these oligosaccharides except that the reducing end is GlcNAc instead of glucose.

- 67. (New) The method of claim 62, wherein the infection is caused by Campylobacter, Shigella, Listeria, HIV, or Noroviruses.
- 68. (New) The method of claim 62, wherein the infection is caused by *V. cholerea*, *C. jejuni*, Enteropathogenic *E. coli* (EPEC), Enterotoxigenic *E. coli* (ETEC), Enterohemorrhagic *E. coli* (EHEC), *Candida albicans*, or *Helicobacter pylori*.
- 69. (New) The method of claim 68, wherein the infection is caused by *V. cholerea* or *C. jejuni*.

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70. (New) A method for treating or reducing the risk of infection, comprising administering to a subject in need thereof a composition containing a first oligosaccharide, a second oligosaccharide, and a pharmaceutically acceptable carrier, the first oligosaccharide being 2'FL or 2'FLNAc, and the second oligosaccharide being selected from the group consisting of LNF-I, LNF-II, 3'-fucosyllactose, LNF-III, LDFH-I, LDFT, 3-fucosyllactose, lactoN-tetraose, lactoN-neotetraose, 3'-sialyllactose, 3'-sialyllactosamine, 6'-sialyllactose, 6'-sialyllactosamine, sialyllacto-N-neotetraose c, monosialyllacto-N-hexaose, disialyllacto-N-hexaose I, monosialyllacto-N-neohexaose II, disialyllacto-N-neohexaose, disialyllacto-N-hexaose I, sialyllacto-N-tetraose, disialyllacto-N-hexaose I, sialyllacto-N-hexaose I, sialyllacto-N-neohexaose, monofucosylmonosialyllacto-N-octaose (sialyl Lea), sialyllacto-N-fucohexaose II, disialyllacto-N-fucohexaose II, monofucosyldisialyllacto-N-fucohexaose II,

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71. (New) The method of claim 70, wherein the second oligosaccharide is LNF-I, LNF-II, 3'-fucosyllactose, 3-fucosyllactose, LNF-III, LDFH-I, LDFT, or a variant thereof which is identical to LNF-I, LNF-II, 3'-fucosyllactose, 3-fucosyllactose, LNF-III, LDFH-I, LDFT except that the reducing end is GlcNAc instead of glucose.

thereof which is identical to one of these oligosaccharides except that the reducing end is

GlcNAc instead of glucose; wherein said composition is not a mammalian milk.

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GlcNAc instead of glucose.

72. (New) The method of claim 70, wherein the second oligosaccharide is selected from the group consisting of 3'-fucosyllactose, LDFH-I, 3'-sialyllactose, 3'-sialyllactosamine, 6'-sialyllactose, 6'-sialyllactosamine, sialyllacto-N-neotetraose c, monosialyllacto-N-hexaose, disialyllacto-N-hexaose I, monosialyllacto-N-neohexaose II, disialyllacto-N-neohexaose, disialyllacto-N-tetraose, disialyllacto-N-hexaose II, sialyllacto-N-tetraose a, disialyllacto-N-hexaose I, sialyllacto-N-tetraose b, 3'-sialyl-3-fucosyllactose, disialomonofucosyllacto-N-neohexaose, monofucosylmonosialyllacto-N-octaose (sialyl Lea), sialyllacto-N-fucohexaose II, disialyllacto-N-fucopentaose II, monofucosyldisialyllacto-N-tetraose, and a variant thereof which is identical to one of these oligosaccharides except that the reducing end is

- 73. (New) The method of claim 70, wherein the infection is caused by Campylobacter, Shigella, Listeria, HIV, or Noroviruses.
- 74. (New) The method of claim 70, wherein the infection is caused by *V. cholerea*, *C. jejuni*, EPEC, ETEC, EHEC, *Candida albicans*, or *Helicobacter pylori*.
- 75. (New) The method of claim 70, wherein the infection is caused by *V. cholerea* or *C. jejuni*.

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76. (New) A method for treating or reducing the risk of infection, comprising administering to a subject in need thereof a composition containing (a) a molecule including a fucose group in an $\alpha 1,3$ linkage or an $\alpha 1,4$ linkage to a galactose group, a fucose group in an $\alpha 1,4$ linkage to an N-acetylglucosamine group, or a fucose group in an $\alpha 1,3$ linkage to an N-acetylglucosamine group, and (b) a pharmaceutically acceptable carrier; wherein said composition is not a mammalian milk and the infection is caused by Campylobacter, Shigella, Listeria, HIV, Noroviruses, V. cholerea, Candida albicans, or Helicobacter pylori.

77. (New) The method of claim 76, wherein the infection is caused by *V. cholerea* or *C. jejuni*.